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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,394	01/23/2002	Anthony S. Wagner	104-986DIV	8444

7590 01/28/2003

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EXAMINER

HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Group Art Unit**

**—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—**

### Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 5 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

- ☒ Responsive to communication(s) filed on 2/1/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.**

## Disposition of Claims

- ☒ Claim(s) 1-4, 6-15 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-4, 6-15 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

**Pri rity under 35 U.S.C. § 119 (a)-(d)**

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number)\_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

**Attachment(s)**

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

### Office Action Summary

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen taken with Carpenter '352 and Segui et al.

Larsen teaches in column 3 decomposing whole tires in molten medium, and recovering the off-gases. Larsen does not teach the apparatus, instead being open to any suitable arrangement. Carpenter teaches in the figures and column 4 conveying whole tires into molten bath, and removing the tires, which carries off the unreacted steel cord. Segui also teaches aluminum as a bath metal in a scheme analogous to that of the other references; degrading a polymer at about 500 degrees.

Concerning the hood to catch the escaping gases, Segui teaches one in column 2; evacuating it before use is an obvious expedient to assure that the off-gases bubble into it and do not escape the bath from the part of the chamber not covered by the hood.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the system of Carpenter and Segui in the process of Larsen because doing so provides an arrangement for carrying out the decomposition. Concerning claim 2, the 14/54/56 elements in Carpenter serve to insure that the tires are immersed, and also the members 18 serve this function. Concerning claim 3, letting the tires drip is an obvious expedient to avoid loss of metal bath material (see col. 5 line 55). Concerning claim 4, forced-air cooling is an obvious expedient to cool the apparatus quickly, for better process throughput. Segui also teaches aluminum as a bath metal in a scheme analogous to that of the other references; degrading a polymer at about 500 degrees.

Concerning claim 8, Segui suggests aluminum. Using the claimed temperature is deemed to be an obvious economic optimization, in which the cost of the bath, the cost to heat it are balanced with the faster decomposition and higher throughput. The references contemplate temperatures

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under 870 as equivalent, since the problematic steel cord will survive. Therefore, no criticality in 800 versus 500 degrees is seen.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen taken with Carpenter and Segui et al. as applied to claims 1-4, 7-15 above, and further in view of Shultz.

The above references do not scrub the off gas, but Shultz does in column 6. Using a scrubber in the above process is an obvious expedient to purify the organic off-gases for better purity and reuse/resale.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9 and 13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support for 'approximately' 800 degrees. The changes in the specification also are objected-to.

Applicant's arguments with respect to claim 1-4 and 6-15 have been considered but are moot in view of the new ground(s) of rejection. As long as a hot bath is used, no criticality is seen in the exact temperature or materials used.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.



Stuart Hendrickson  
examiner Art Unit 1754